

Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PROCEEDINGS

OF THE

AMERICAN PHILOSOPHICAL SOCIETY

HELD AT PHILADELPHIA

FOR

PROMOTING USEFUL KNOWLEDGE

Vol. XI

JANUARY 1869 TO DECEMBER 1870

PHILADELPHIA:
PRINTED FOR THE SOCIETY

BY M'CALLA & STAVELY.

1871.

INDEX.

BUSINESS.	
-----------	--

Standing Committees		all Group es of Crinoidea	$\frac{2}{6}$, $\frac{2}{278}$
Special Committee on Wi	nchell's Marsl	nall Group	. 24
" Lyc	n's New speci	es of Crinoidea	. 24
" De	wey's Carices.	11	3, 115
" " Ho	mon Sonomic	nida	146
" " Bri	nton's Arawa	ek language	200
" " Cor	e's Megadact	ylus Polyzelus	277
" " Fra	ser's Metallur	gical Chart	447
" " Ma	haro and Mos	ka Books	. 515
" Cor	e's Ichthyolog	y of the Marañon	. 524
" The	Michaux Le	gacy, 6, 24, 114, 193, 201, 212, 213, 440, 44	2, 447
" " The	Michaux Ool	Grove and Botonic Garden31	3, 111
" " A N	Teteorological	Observatory 59	2, 523 7 579
Cleaning and Varnishing the	Portraits	Observatory	1, 239
Memorial to Congress respect	ing the Eclips	e	13
The Rittenhouse Clock		***************************************	. 84
The Magellanic premium awa	rded		5, 214
Pursh's Botanic Journal retu	rned	••••••	. 370
Marianna's History of Spain	eturnea	····	4, 192
Proceedings issued No 80	· · · · · · · · · · · · · · · · · · ·	***************************************	. Z/5
Appropriations for 1870 made	. 		. 530
The President's resignation w	ithdrawn	44	1 442
Order governing additions to	memoirs going	through the Press	278
Order respecting delinquent s	ubscribers to	the Transactions	. 572
Mr. Cuyler's motion respectin	g the Physical	the Transactions	. 572
•	Members	Elected.	
Elections		7, 111, 210, 278, 368, 44	7, 521
Agassiz, Mrs. Elizabeth, of Ca	mbridge	Horne, George H., M. D., of Philada	. 7
Mass	210	Huxley, Thomas H., of London Lartet, Edward, of Paris	. 7
Anderson, George W., of Wes	t Haver-	Lartet, Edward, of Paris	. 7
ford, Pa Baird, Henry C., Philadelphia	211	Linant Bey, of Cairo	. 7
Beadle, Rd. E. R., of Philadel	nhia 147	Lippincott, Joshua B., of Philadelphi	a 7
Binney, Horace Jr., of Philad	elnhia 7	Lyman, Benjamin S., of Philada Mariette Bey, Auguste, of Cairo Mayer, Alfred M., of South Bethleher	. 7
Birch, Samuel, of London	7	Mayer Alfred M of South Bethleher	. '
Blackmore William of Sc	lisbnry,	Pa	. 211
(London), England	. 7	Miller I Imbrie of Pennsylvania	591
Blake, William P., of New H	iven, Ct 521	Mitchell, Miss Maria, of Vassar Co	ı
Boekh, Dr. C. W., of Christian		lege, N. Y.	. 210
Brinton, D. G., M. D. of Phila	447	Mitchell, Miss Maria, of Vassar Co lege, N. Y. Naumann, Carl Fr., of Leipsig	210
Brugsch, Henri, of Berlin	161pina. 112 7	Nillson, Sven, of Lund. Pepper, Dr. Wm. of Philada. Phillips, John, of Oxford.	. 447
Bullock, Charles, of Philadelp		Phillips John of Oxford	. 441
Carlier, Auguste, of Paris	7	Prestwich, Joseph, of LondonQuincy, Edmund, of Dedham, Mass	. 7
Ceselli, Dr., of Rome	7	Quincy, Edmund, of Dedham, Mass	. 368
Chabas, Francois, of Chalons st	ır Şaone 7	Rawlinson, George, of England	. 210
Coffin, J. H. C., U. S. N., Sup	t. Naut.	Reeves, Samuel J., of Philada	. 7
Almanac, Washington Cox. Hon. J. D., of Washington	n D C 368	Rutimover Carl I of Pagel	. 7
Coxe, Eckley B., of Philadelph	ia 521	Quincy, Edmund, of Dedham, Mass. Rawlinson, George, of England. Reeves, Samuel J., of Philada Rolleston, George, of Oxford Rutimeyer, Carl L., of Basel. Seidensticker, Oswald, of Phila Seiler, Mrs. Emma, of Philada. Seiler, Mrs. Emma, of Philada. Siebold, Carl T. E. Von, of Munich. Somerville, Mrs. Mary, of England now of Naples. Tilghman, W. M., of Philada. Tyndale, Hector, of Philada. Tyson, Philip T., of Baltimore. Vogt, Carl, of Geneva. Vose, George L., of Salem, Mass. Wharton, Joseph, of Philada.	278
D'Aligny, Henry F. Q., of New	York 521	Seiler, Mrs. Emma, of Philada	. 278
D'Aligny, Henry F. Q., of New Darwin, Charles, of England.	210	Siebold, Carl T. E. Von, of Munich	. 210
DeRouge, Emmanuel, of Pari	3	Somerville, Mrs. Mary, of England	l
Dumichen, Johannes of Germa	iny 7	now of Naples	. 210
Flower, William H., of Londo Frauenfeld, George Von, of V Gabb, William M., of Philade	ionno 911	Tilgnman, W. M., of Philada	. 278
Gabb, William M., of Philade	lnhia 7	Typon Philip T of Poltimore	. 211
Gruner, Louis, Ecole des Mine	s. Paris 210	Vogt, Carl, of Geneva	. 210
Hakakian Bey, of Cairo Hale, Rev. E.E., of Roxbury (7	Vose, George L., of Salem, Mass	. 521
Hale, Rev. E.E., of Roxbury (Boston)	Wharton, Joseph, of Philada	. 112
Mass Hitchcock, Prof. Charles H.,	278	white, A. D., President Cornell Un	l-
Vork City	or New	versity, Ithaca, N. Y Whittier, John Greenleaf, of Ames	. 112
York City	368	willing, John Greenleaf, of Ames	3-
enna	, or v1-	bury, Mass Williamson, Major R. S., U. S. Eng	278
Hooker, Joseph D., M. D.,	of Kew	neers	. 368
Gardens		Worsaae, J. J. A., of Copenhagen	. 506
Hopper, Edward, of Philadel	ohia 211	,	- '
A. P. S.—VOL. XI.—	$49_{\mathbf{E}}$		

Photographs Received.

Coffin, J. H. C Haven, Dr. S. F. Horn, Dr		Jarvis, Dr. E Newton, Prof. H. A Röhrig, Prof. F. L. O	442 442 368
	Members	Deceased.	
Cassin. John Clark, Sir James Cleveland	obituary read, 85) 14 Jr., (obituary read, 279	Grier, R. C. Meigs, C. Merrick, S. V., (obituary read, 584) Paulding, J. K. Peale, Franklin, (obituary read, 597 Simpson. Jas. Y. Stevens, Alexander, Von Martius, C. F. P. List of surviving members read	146 496 24 7). 369
	Memeirs and C		
Ackerman, A. Atlen, D. H.: (Briggs, H.: On Brinton, D. G. "" Chase, P. E.: O "" Cresson, J. C. "" Cope, E. D.: On "" "" "" "" "" "" "" "" ""	Thunder storm of Aug. 4 Description of recent aut Mylodon Annectens The Cretaceous Tortolses A new Mosasauroid reptil Seventh contribution to tl Synopsis of Extinct Mamr ted States, [with three p Second addition to the Hi the United States Some Etheostomine Perch Some Republia of the Cret	at Bois-Chêne	209 498 522 15 16, 146 147 ni- 171 of 12, 240 261 71, 275
16		of a skeleton	
"	Adocus, a genus of Cretac	e misory of the Faulia of the Milocel he United States eous Emydidæ lear Woodbury figures of the human foot on rocks	295
	Photographic pictures of	figures of the human foot on rocks	311
44	Fossil fishes	of a new species of Bottosauruses of Green River, Wyoming Ter37	316
"	Fishes of the Tertiary shall	les of Green River, Wyoming Ter37	0, 380
	A new Chimærid from Ne	w Jersey	384
	Asteracauthus	us37	440
	Triassic Reptilia	J o Mooni claudi	444
	A partial synopsis of the	d a Maori skull.	440 r-
44	Liodon perlatus, &c		496
"	Mososaurus Brumbyi	ntillas	497
	Some remains of a new Cr	etaceous tortoise	514
**	The Osteology of Megapte	atilles. etaceous tortoise. ra Bellicosa.	516

Fishes of the fresh water tertiary in Idaho, discovered by Capt.	529
fishes of the fresh water tertiary in idano, discovered by Capt.	
Clarence King	5559
" Fighth Contribution to the Homotology of the Maranon	, ၁၁५
519 559	
513, 553	P71
Idaho freshwater fossil fishes. Mososaurus maximus, &c. The Adocidae. Species of Pythonomorpha, from Kansas and New Mexico	571
The Adoides	5/17
" Species of Pythonomouphs from Venges and New Mexico	047
" Fossils from W. India Island cover	0/4
"Fossils from W. India Island caves. Dubois, W. E.: On Specimen of silver ore	900
" Silver Core. " Silver Core. " Silver Core. " Written communication respecting Lake Superior silver mines Davidson, Geo.: On obtaining the longitude of San Francisco. Emerson, G.: On an improvement in Whitney's Cotton Gin. " Robbin's process for preserving wood from mould and decay. The part taken by the Am. Phil. Soc. in establishing stations for meteorological observations.	92
Written communication respecting I also Superior silver miner	233
Davidson Geo. On obtaining the langitude of Son Empresses	927
Emarson, G. On an improvement in Whitney's Cetter Civ.	91
Poblin's progress for progressing wood from mould and decor	111
"The part follow by the Am Did So in antablishing detay	111
for metavorological observations	F10
Information concerning the earthquake of Oct. 20th, 1870	522
Frazer, Persifer, Jr.: A chart exhibiting all the metallurgical processes now	440
employed at Friberg, with descriptive text	442
Genth, F. A.: On Rhodium Gola in San Domingo and gold sand from the soil of	100
" Philadelphia	439
Un native lead and from in gold tainings from Montana Territory	443
Hayden F V. Note on the good over of Warming and Coloned Ton N. O. J.	369
A woodly to big percent or (lock-wise Villemont Misses)	431
Appendix to his report on Geology or Yerlow and Missouri Rivers	112
" Field votes on the goolean of Colored and New Marie and	115
Description of a laws collection of facilities in the second 212,	234
" Description of a large conection of fossit fishes, fisects, &c	316
"Three estions of strate belonging to the Donnier was West	368
ming Townstown	400
ining fermiory.	420
by F Pollage	405
Up F. Bolleck	425
On native lead and iron in gold tailings from Montana Territory. Halderman, S. S.: On Beads from Indian graves. Hayden, F. V.: Notes on the geology of Wyoming and Colorado Ter. No. 215, Appendix to his report on Geology of Yellow and Missouri Rivers Geological map of the Upper Missouri. Field notes on the geology of Colorado and New Mexico	407
Hown C. H. On the waviging of the Tonehviewide of America	431
Kinkwood D. On the revision of the rehebrionings of America	115
the motor and motors	95
"Universal of the control of the con	215
The mass of Astoroida between More and Traiter	299
The Tage On thirteen new experies of Chippides	498
Laslaw T D. On the Aurora Deposits of April 15th	14
Section genes the Alleghony mountains	111
Description of fossil usnes from the upper coal measures of Nebraska Horn, G. H.: On the revision of the Tenebrionidæ of America Kirkwood, D.: On the periodicity of the sun's spots	119
Lawria W II . Some suggestions on the maintaining forest of Garmieal action	2/1
4 sagrab for the normal gauge of the recognity of Cosmic and Indian	199
nodes	000
nodes	220
Marston, Com.: On relics from Vera Cruz.	194
Mayor Alfred Abstract of results of mossurements and ever instances the	83
Mayer, Alfred: Abstract of results of measurements and examinations of the photographs of the total eclipse of August 7, 1869202,	004
McClure: Drawings of the appearance of the sun in the eclipse of Aug. 7, 1869	$\frac{204}{202}$
McNeil . On his Evylorations in Control A marios	202
Martan Pierce's photography of the celling	909
Orr. Hector: Extraordinary mildness of the winter illustrated	202
" On the hail storm of May 8th	419
Penner: On a unique case of Universal Hyperostosis	571
Porter T. C. Indian inscriptions	911
Roscoe. Dr · Letter respecting a supposed Laurentian fossil	027
Rothwell: New man of the Anthracite ('oal Rasins	119
Sheafer. P. W.: Boring records in the Anthracite Region	110
McClure: Drawings of the appearance of the sun in the eclipse of Aug. 7, 1869. MoNeil: On his Explorations in Central America. Morton: Pierce's photographs of the eclipse. Orr, Hector: Extraordinary mildness of the winter illustrated. " On the hail storm of May 8th. Pepper: On a unique case of Universal Hyperostosis. Porter, T. C.: Indian inscriptions. Roscoe, Dr.: Letter respecting a supposed Laurentian fossil. Rothwell: New map of the Anthracite Coal Basins. Sheafer, P. W.: Boring records in the Anthracite Region 93, Coal borings in the Wilkesbarre Basin Tyson, Phillip T.: Section of the Cumberland Coal Basin. Winchell; Alexander: On the Geological Age and equivalents of the Marshall Group, part I. II. 15, 57, 245, 275, 369, Wood, G. B.: Indian relics from southern New Jersey. Experiments on the revival of peach trees.	995
Tyson, Phillip T.: Section of the Cumberland Coal Basin.	0
Winchell: Alexander: On the Geological Age and equivalents of the Marshall	ð
Group, part 1. II	385
Wood, G. B.: Indian relies from southern New Jersey	213
Experiments on the revival of peach trees. Communications concerning an Indian skeleton	237
	585
Wood H C Jr. Prodomis of a study of the fresh water Alem of anti-	
and a street water Algae, or easiern	
and a street water Algae, or easiern	
North America Concerning recent experiments with Veratria. On the medical activity of the hemu plant as grown in North	119 214
North America Concerning recent experiments with Veratria. On the medical activity of the hemu plant as grown in North	119 214
"North America	119 214

614

Correspondence:

Prof. Bache's correspondence returned A bronze medal from the Balavian Society of Experimental Science at Rotterdam Prof. Henry, respecting the Byington MSS. M. Carlier, respecting the Michaux legacy. Dr. Dewey's report on Carices. Letter read relating to. Gen. Humphreys' correspondence respecting the geological reports. National Telegraphic Storm Survey. Philadelphia College of Pharmacy. Schimper's Palaeontologie Vegetable. Mr. Sullivan to Mr. James, respecting posthumous work by Schwartz, the bryologist. Societies placed on the list of correspondents:	385 514 234 170 278 521 201
Geological Survey of Sweden	213
Howard University. Imperial Central Meteorological Institute Georgia Historical Society. Ulm Art and Antiquity Union Meteorological office. Montreal Nat. Hist. Society. New Bedford Public Library. New Observatory at Paris. Society of Phy. and Natural Sciences, Bordeaux Surgeon General's office, Washington.	283 279 524 116 90 210 209 3
University of Indiana	280